

Priya Batra

Curriculum Vitae

Department of Physics
IISER Pune, India 411008
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📄 96ya.github.io/priyabtr

Education

- 2018-ongoing **Indian Institute of Science Education and Research Pune**,
PhD in Physics.
- 2016-2018 **Indian Institute of Science Education and Research Pune**,
MS in Physics.
- 2016 **Maharani College, Jaipur**,
B.Sc..

Research interests

- Quantum Information
- Quantum Control
- Intersection of Machine Learning and Quantum Physics

Publications

Pre-Prints

1. Efficient Characterization of Quantum Evolutions via a Recommender System
Priya Batra, Anukriti Singh, T S Mahesh
arXiv:2005.10555

Published

1. Experimental localisation of quantum entanglement through monitored classical mediator
Soham Pal, Priya Batra, Tanjung Krisnanda, Tomasz Paterek, T. S. Mahesh
Quantum 5, 478 (2021)
2. Push-pull optimization of quantum controls
Priya Batra, VR Krithika, TS Mahesh
Physical Review Research 2 (1), 013314

Skills

- Languages Python
- Frameworks Keras, PyTorch, Tensorflow
- WebD HTML/CSS
- Utilities Anaconda, Git, Jupyter Notebook, matlab
- Communication English, Hindi

Teaching

- Jan 2021–April 2021 **Quantum Mechanics**, *Post Graduate Course.*
shared course at Fergusson College Pune
- June 2021–August 2021 **Atoms, Molecules and Solids**, *Post Graduate Course.*
shared course at Fergusson College Pune

November 2021–
Ongoing

Solid state Physics, Post Graduate Course.
shared course at Fergusson College Pune

Teaching Assistant

August 2018–
December 2018

World of Physics, Under Graduate Course.
Course Coordinator: Prof. Sudarshan Ananth

Jan 2019–
April 2019

Modern Physics Lab course, Under Graduate Course.
Course Coordinator: Dr. Umakant Rapol

August 2019–
December 2019

Classical Mechanics, Post Graduate Course.
Course Coordinator: Prof. Deepak Dhar

Jan 2020–
April 2020

Quantum Information, Post Graduate Course.
Course Coordinator: Dr. Sachin Jain

Scholarship/Awards

- Prime Minister Research Fellowship May 2019
- CSIR Junior Research Fellowship June 2018
- DST Inspire Fellow 2013-2016
- JEST 2016
- IIT-JAM 2016

Conferences

Poster QFTA 2019, IISER Mohali

Attendee Statistical Physics of Machine Learning 2020, ICTS Bangalore

Poster NMRS 2020, Saurashtra University, Rajkot

Poster Young Quantum 2020, HRI Allahabad

Attendee QTML 2020

Attendee QFA 2021, IIT Jodhpur

Attendee IEEE International Conference on Quantum Computing and Engineering 2021

Attendee QTML 2021

Research Experience

Summer 2015

Project Assistant, Rajasthan University Jaipur.
Project in Solar Physics
Supervisor: Dr. Sunita Mahavar

August 2016–
August 2018

MS Project, IISER Pune.
Project in Bio Physics
Supervisor: Dr. Shiv Prasad Patil

Extra Curriculars

Jan 2020–
July 2021

Student Council Member, IISER Pune

August 2018–
August 2019

Co-ordinator at Prerana (Disha), a social outreach program of IISER Pune